

REMARKS

The pending claims are 1-14. Claims 3, 4, 6, 9, 13 and 14 have been amended. No new matter is introduced therein.

Claims 9-14 have been rejected under 35 U.S.C. § 112, first paragraph, because of the following phrase in claim 9: "a size of said first antenna element is different from a size of said second antenna element." The phrase is supported by page 20, line 28 through page 21, line 4: "In the ninth embodiment, providing a slight size difference between the right and left antenna elements allows correction of the displacement of matching points in the operating frequencies of the antenna elements caused by such influences as the layout of peripheral devices." Nevertheless, the phrase has been deleted because it is inadvertently inconsistent with other parts of the claim. Since that phrase has now been deleted from claim 9, applicants request that this rejection be withdrawn.

Applicants gratefully acknowledge that claims 1-4 have been allowed.

Claims 1-14 have been rejected under 35 U.S.C. § 112, second paragraph. On page 2, the Office Action has asked what is meant by "isolated." "Isolated" means "not connected to ground." On page 2, the Office Action has also asked a question regarding the term "symmetrical" in claims 3 and 4. Although "symmetrical" is discussed on page 20, lines 21-23, the discussion does not include the inventions recited in claims 3 and 4. Therefore, claims 3 and 4 each have been amended by deleting the following phrase: "elements of said grounded antenna and said ungrounded antenna are symmetrical and." Accordingly, applicants request that the § 112 rejections of claims 1-4 be withdrawn so that their allowance can be finalized.

The basis for the rejection of claim 6 is that there is no antecedent basis for "said grounded antenna." Applicants agree. Therefore, claim 6 has been amended by deleting "said grounded antenna and." Accordingly, applicants request that this rejection be withdrawn.

The basis for the rejection of claim 9 is the phrase "wherein at least one of said first conductor section and said second conductor section is isolated from said ground plane." The Office Action apparently expresses a belief that applicants had used Figures 11 and 12 to support this recitation. Instead, applicants' Remarks in their previous Response pointed out that this phrase is supported by page 21, line 13-page 22, line 9 of the

specification, which relates to Figure 13, rather than to Figures 11 and 12. Specifically, page 22, line 5 refers to ungrounded antenna elements 1310 and 1320, thereby supporting the recitation that "at least one of said first conductor section and said second conductor section is isolated from said ground plane." As applicants noted above, "isolated" means "not connected to ground." Since the questioned phrase in claim 9 is supported by Figure 13 and by the specification, applicants request that this rejection be withdrawn.

With respect to claim 13 and 14, the Office Action has indicated that it is not clear whether the recitation of "a ground" is equivalent to a recitation of "a ground plane" in claim 9. Page 22, lines 20-22 describes "placing ground plane 1380 in close proximity to the both antenna elements and coupling the ground plane to the elements via high-frequency waves." Claims 13 and 14 have been amended by changing "ground" to "ground plane" so that they are consistent with claim 9.

Claims 5-8 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Chen (U.S. Patent No. 6,337,670). The filing date of Chen is September 27, 2000. Applicants' declaration and their claim to right of priority show that they are entitled to the benefit of the filing of prior Japanese Patent Applications No. 2000-090367, filed March 29, 2000; No. 2000-283025, filed September 19, 2000; and No. 2000-292071, filed September 26, 2000. Enclosed herewith are verified English translations of all three Japanese patent applications. In view of the priority of applicants' invention over Chen, Chen is not prior art against claims 5-8 and therefore claim 5-8 are not subject to rejection under 35 U.S.C. § 102(e) as being anticipated by Chen.

Claims 9-11 and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McKivergan (U.S. Patent No. 6,339,402) in view of Liu (U.S. Patent No. 6,222,496). The rejection is respectfully traversed. Claim 9 recites, in part, that "at least one of said first conductor section and said second conductor section is isolated from said ground plane." As noted above, "isolated" means "not connected to ground." The Office Action contends that Figure 2 of McKivergan discloses that

at least one 24, 44 of the first conductor section and the second conductor is "isolated" from the ground plane.

Applicants respectfully disagree.

McKivergan clearly states that 24, 44 are, in fact connected to ground and therefore, are not isolated from ground. McKivergan states that "first conductive surface 24.

. .is coupled at two regions to ground plane 14." (col. 3, lines 38-39); and that "a second conductive surface 44. .is operatively connected at two points to ground plane 14." (col. 4, lines 12-14) Therefore, neither of the antennas in McKivergan are isolated from the ground plane. That is, neither of them is "not connected to ground." In other words, they are coupled to the ground plane, which is different than what is recited in claim 9. Accordingly, McKivergan does not disclose the recitation in claim 9 that "at least one of said first conductor section and said second conduction section is isolated from said ground plane."

The Office Action has cited Figure 2 of Liu solely to show "a second conductor section successively formed from said first conductor section and angularly arranged relative to said substrate" as recited in claim 9. Although Liu does show some of the features in claim 9, Liu does not disclose first and second antenna elements each of which has "a first conductor section substantially in parallel to said substrate," "a second conductor section successively formed from said first conductor section and angularly arranged relative to said substrate," and "at least one of said first conductor section and said second conductor section is isolated from said ground plane." Instead, Liu shows only a single antenna element.

There is no suggestion that Liu's teachings can be used to make "[a] wireless unit having first and second antenna elements" and there is no suggestion that McKivergan's teachings can be used to make a unit having first and second antenna elements "wherein at least one of said first conductor section and said second conductor section is isolated from said ground plane." Therefore, McKivergan and Liu cannot be combined to make the device recited in claim 9 and claim 9 is not subject to rejection under 35 U.S.C. § 103(a) as being unpatentable over McKivergan in view of Liu.

Since claims 10, 11, and 13 depend from claim 9, they are also not subject to rejection under 35 U.S.C. § 103(a) as being unpatentable over McKivergan in view of Liu.

Claims 12 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over KcKivergan in view of Liu and further in view of Muramoto et al. (U.S. Patent No. 6,326,924). The rejection is respectfully traversed. Muramoto has been cited solely because it shows a switch for connecting to an external antenna as recited in claim 12. Claims 12 and 14 depend from claim 9. Since Muramoto does not disclose all of the features recited in claim 9, claims 12 and 14 are not subject to rejection under 35 U.S.C. §

103(a) as being unpatentable over McKivergan in view of Liu and further in view of Muramoto.

The prior art made of record and not relied upon is not considered any more pertinent to applicants' disclosure than that already cited.

For all the foregoing reasons, applicants respectfully solicit allowance of the entire application.

Respectfully Submitted,

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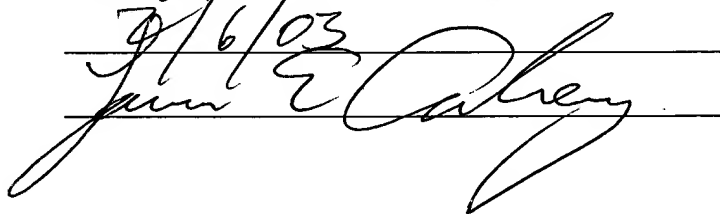
Enclosure: Version With Markings To Show Changes
Verified Translations of Priority Documents: JP 2000-090367, JP 2000-283025, JP 2000-292071

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VERSION WITH MARKINGS TO SHOW CHANGES MADE**IN THE CLAIMS:**

1 3. (Twice Amended) The diversity wireless device as described in Claim 1
2 wherein

3 ~~elements of said grounded antenna and said ungrounded antenna are~~
4 ~~symmetrical and~~ an angle between said grounded antenna and said ungrounded antenna is
5 established at 90°.

1 4. (Twice Amended) The diversity wireless device as described in Claim 2
2 wherein

3 ~~elements of said grounded antenna and said ungrounded antenna are~~
4 ~~symmetrical and~~ an angle between said grounded antenna and said ungrounded antenna is
5 established at 90°.

1 6. (Twice Amended) The diversity wireless device as described in Claim 5
2 wherein

3 elements of said ~~grounded antenna and said ungrounded antennas~~ are
4 symmetrical and an angle between said ungrounded antennas is established at 90°.

5 9. (Twice Amended) A wireless terminal unit having first and second antenna
6 elements, each of said antenna elements including:

7 (c) a substrate;

8 (d) a ground plane disposed on said substrate;

9 (c) a first conductor section substantially in parallel to said substrate; and

10 (d) a second conductor section successively formed from said first conductor
11 section and angularly arranged relative to said substrate,

12 ~~wherein a size of said first antenna element is different from a size of said~~
13 ~~second antenna element, and~~

14 wherein at least one of said first conductor section and said second conductor
15 section is isolated from said ground plane.

16 13. (Twice Amended) The wireless terminal unit as described in Claim 11 wherein

17 said antenna elements are ungrounded, atthe ground plane is placed in
18 proximity to at least one of said ungrounded antenna elements, and said ungrounded
19 antenna communicates with said ground plane via high-frequency waves.

14. (Twice Amended) The wireless terminal unit as described in Claim 12 wherein

 said antenna elements are ungrounded, atthe ground plane is placed in
proximity to at least one of said ungrounded antenna elements, and said ungrounded
antenna communicates with said ground plane via high-frequency waves.